

What is claimed is:

Sub A17

1. An electronic payment interchange concentrator for effecting one or more of the reception, transmission, translation and storage of data files containing information relating to financial instruments among multiple institutions, said financial instruments being exchanged between and among the institutions, comprising:

a means for receiving a data file from an originating institution, said data file being in a first file format established by the originating institution and containing a designation that the information in the data file is to be received by a predetermined institution;

a processor for translating said financial instrument information in said first data file format into a second data file format selected by the institution that is to receive the information, said processor including program means for translating said data file;

a means for storing said financial instrument information in said second data file format that is uniquely accessible to the institution that is to receive the information;

and

a means for transmitting said financial instrument information in said second data file format upon instruction from the institution that is to receive the information.

1 2. The apparatus of claim 1 wherein said data file further contains identifying
2 information with respect to the originating institution and the receiving institution, said
3 apparatus further including means for:

4 (a) validating the identifying information of the originating institution and the
5 receiving institution;

6 (b) authenticating the financial instrument information contained in said first data file
7 format with respect to predetermined data format parameters; and

8 (c) determining a data file format acceptable to the receiving institution.

1 3. The apparatus of claim 1, further including security procedures for preventing
2 unauthorized originating and receiving institutions from effecting one or more of the
3 reception, transmission, translation and storage of said financial instrument information.

1 4. The apparatus of claim 1 including a means for transmitting said financial instrument
2 information in said second data file format to one or more settlement mechanisms.

1 5. The apparatus of claim 4 in which the settlement mechanism is predetermined by the
2 originating institution.

1 6. The apparatus of claim 4 in which the settlement mechanism is predetermined by the
2 receiving institution.

1 7. The apparatus of claim 4 in which the settlement mechanism is predetermined by
2 agreement of both the originating and receiving institutions.

1 8. The apparatus of claim 1 wherein said data file transmitted from said originating
2 institution includes co-mingled financial instrument information intended for multiple
3 receiving institutions.

1 9. The apparatus of claim 8 further including a means for separating said co-mingled
2 financial instrument information corresponding to each of the multiple receiving institutions.

1 10. The apparatus of claim 9 wherein said processor translates said separated financial
2 instrument information into one or more data file formats selected by each of the multiple
3 receiving institutions.

Sub A2
1 11. The apparatus of claim 9 wherein said processor translates said separated financial
2 instrument information into one or more data file formats corresponding to a data file format
3 acceptable to one or more of a plurality of settlement mechanisms.

1 12. The apparatus of claim 1 including an archive for storing said financial instrument
2 information.

1 13. The apparatus of claim 1 including a means for transmitting said financial instrument
2 information in said second data file format upon one of demand from the receiving
3 institution, instructions by the originating institution and within a prearranged time period.

1 14. The apparatus of claim 1 wherein said data file further contains identifying
2 information with respect to an account at an institution of first deposit in which said financial
3 ~~instrument is deposited.~~

1 15. The apparatus of claim 14 in which the originating institution is the institution of first
2 deposit.

1 16. The apparatus of claim 14 in which the originating institution is not the institution
2 of first deposit.

1 17. The apparatus of claim 1 wherein said data file further contains information with
2 respect to settlement instructions from said originating institution.

1 18. The apparatus of claim 1 wherein said data file further contains information with
2 respect to settlement instructions from said receiving institution.

1 19. The apparatus of claim 1 wherein the financial instrument is a cash item.

1 20. The apparatus of claim 1 wherein the financial instrument is one of an electronic
2 funds transfer and a paper instrument.

1 21. The apparatus of claim 20 wherein said paper instrument is one of a money order, a
2 share order, and a draft.

1 22. The apparatus of claim 1 wherein said financial instrument includes an MICR line
2 from which information relating to the instrument is derived.

1 23. The apparatus of claim 22 in which the information from the MICR line includes at
2 least one of the routing transit number, customer account number and currency amount.

Sub A 1 24. An electronic payment interchange concentrator for effecting one or more of the
2 reception, transmission, translation and storage of data files containing information relating

3 to financial instruments among multiple institutions, said data files containing identifying
4 information with respect to an originating institution and a predetermined receiving
5 institution, said financial instrument information being exchanged between and among
6 institutions, comprising:

7 a means for receiving a data file from the originating institution, said data file being
8 in a first file format established by the originating institution and containing a
9 designation that the information in the data file is to be received by said
10 predetermined institution;

11 a processor for: (a) validating the identifying information of the originating
12 institution and the receiving institution; (b) authenticating the financial instrument
13 information contained in said first data file with respect to predetermined data format
14 parameters; (c) determining a data file format acceptable to the receiving institution;
15 and (d) translating said financial instrument information in said first data file format
16 into a second data file format preselected by the receiving institution;

17 a means for storing said financial instrument information in said second data file
18 format, said storing means being uniquely accessible to the receiving institution;

19 a means for transmitting said financial instrument information in said second data file
20 format stored in the memory storage device to the receiving institution; and

21 an archive for storing said financial instrument information in said second data file

22 ~~format~~

1 25. The apparatus of claim 24 further including a means for transmitting said financial
2 instrument information in said second data file format to a settlement mechanism
3 predetermined by one of the originating institution, the receiving institution and by
4 agreement of the originating and receiving institutions.

1 26. The apparatus of claim 24 including a means for transmitting information, derived
2 from said financial instrument information, in said second data file format to a settlement
3 mechanism.

1 27. The apparatus of claim 24 further including security procedures for preventing
2 unauthorized originating and receiving institutions from effecting one or more of the
3 reception, transmission, translation and storage of said financial instrument information.

1 28. The apparatus of claim 24 wherein said data file in said first file format transmitted
2 from said originating institution includes co-mingled financial instrument information
3 intended for multiple receiving institutions.

1 29. The apparatus of claim 28 further including a means for separating said co-mingled
2 financial instrument information corresponding to each of the multiple receiving institutions.

1 30. The apparatus of claim 29 wherein said processor translates said separated financial
2 instrument information into one or more data file formats selected by each of the multiple
3 receiving institutions.

Sub A5
1 31. The apparatus of claim 29 wherein said processor translates said separated financial
2 instrument information into one or more data file formats corresponding to a data file format
3 acceptable to one or more settlement mechanisms.

1 32. The apparatus of claim 24 wherein the financial instrument is one of electronic funds
2 transfer and a paper instrument.

1 33. The apparatus of claim 24 wherein said data file transmitted from said originating
2 institution includes financial instrument information intended for multiple receiving
3 institutions.

Sub A6
1 34. The apparatus of claim 24 wherein said financial instrument is a cash item.

1 35. The apparatus of claim 24 wherein the financial instrument is one of an electronic
2 funds transfer and a paper instrument.

1 36. The apparatus of claim 35 wherein said paper instrument is one of a money order, a
2 share order, and a draft.

1 37. The apparatus of claim 24 wherein said financial instrument includes an MICR line
2 from which information relating to the instrument is derived.

1 38. The apparatus of claim 37 in which the information from the MICR line includes at
2 least one of the routing transit number, customer account number and currency amount.

Sub A7
A6
1 39. The apparatus of claim 24 wherein said data file further contains identifying
2 information with respect to an account at an institution of first deposit in which said financial
3 instrument is deposited.

1 40. The apparatus of claim 39 wherein said institution of first deposit is said originating
2 institution.

1 41. The apparatus of claim 39 wherein said originating institution is not the institution
2 of first deposit.

Sub A8
A8
A7

1 42. The apparatus of claim 24 wherein said data file further contains information with
2 respect to settlement instructions from said originating institution.

1 43. The apparatus of claim 24 wherein said data file further contains information with
2 respect to settlement instructions from said receiving institution.

1 44. The apparatus of claim 24 further including means for enabling the receiving
2 institution to retrieve the financial instrument information in said second data file format
3 upon one of demand from the receiving institution, instructions by the originating institution
4 and within a prearranged time period.

1 45. A system for effecting one or more of the reception, transmission, translation and
2 storage of data files between or among institutions, said data files containing information
3 about financial instruments, comprising:

4 a communication link between an originating institution and a master processor
5 through which an electronic data file is sent from an originating institution, said data
6 file being in a first file format established by the originating institution and
7 containing identifying information with respect to both the originating institution and
8 an institution that is to receive the financial instrument information;

9 ~~said processor~~

(a) validating the identifying information of the originating institution and the receiving institution;

(b) authenticating the financial instrument information contained in said data file in said first data format with respect to predetermined data format parameters;

(c) determining a preselected data file format acceptable to the receiving institution; and

(d) translating said financial instrument information in said first data file format into a second data file format preselected by the receiving institution;

a means for temporarily storing said financial instrument information in said second data file format in memory unique to the receiving institution;

a communication link for transmitting said financial instrument information in said second data file format stored in the memory storage device to the receiving institution; and

an archive for storing said financial instrument information.

46. The system of claim 45 further including a communication link for transmitting information derived from said financial instrument information in said second data file format to a settlement mechanism.

1 47. The system of claim 45 or claim 46 further including enabling the receiving
2 institution to retrieve the financial instrument information in said second data file format
3 upon one of demand from the receiving institution, instructions by the originating institution
4 and within a prearranged time period.

1 48. The system of claim 45 further including security procedures for preventing
2 unauthorized originating and receiving institutions from effecting one or more of the
3 reception, transmission, translation and storage of said financial information within the
4 ~~system~~

1 49. The system of claim 45 wherein said data file transmitted from said originating
2 institution includes co-mingled financial instrument information intended for multiple
3 receiving institutions.

1 50. The system of claim 49 further including a means for separating said co-mingled
2 financial instrument information corresponding to each of the multiple receiving institutions.

1 51. The system of claim 50 wherein said processor translates said separated financial
2 instrument information into one or more data file formats selected by each of the multiple
3 receiving institutions.

Sub A9
A8
1 52. The system of claim 50 wherein said processor translates said separated financial
2 instrument information into one or more data file formats corresponding to a data file format
3 acceptable to separate settlement mechanisms to which the information in differing data file
4 formats are directed.

1 53. The system of claim 45 wherein said financial instrument is a cash item.

1 54. The system of claim 45 wherein the financial instrument is one of an electronic funds
2 transfer and a paper instrument.

1 55. The system of claim 54 wherein the paper instrument is one of a money order, a share
2 order, and a draft.

1 56. The system of claim 45 wherein the financial instrument includes an MICR line from
2 which information relating to the instrument is derived.

1 57. The system of claim 56 in which the information from the MICR line includes at least
2 one of the routing transit number, customer account number and currency amount.

Sub A10
A97
1 58. The system of claim 45 wherein said data file further contains identifying information
2 with respect to an account at an institution of first deposit in which said financial instrument
3 is deposited.

1 59. The system of claim 58 wherein said institution of first deposit is said originating
2 institution.

1 60. The system of claim 58 wherein said originating institution is not the institution of
2 first deposit.

Sub A11
A10
1 61. A process for effecting one or more of the electronic reception, transmission,
2 translation and storage of data files containing information relating to financial instruments
3 among multiple institutions, said financial instruments being exchanged between and among
4 the institutions, comprising:

5 receiving a data file from an originating institution, said data file being in a first file
6 format established by the originating institution and containing a designation that the
7 information in the data file is to be received by a predetermined institution;

8 translating said financial instrument information in said first data file format into a
9 second data file format selected by the institution that is to receive the information;
10 storing said financial instrument information in said second data file format in a
11 memory that is uniquely accessible to the institution that is to receive the
12 information; and
13 transmitting said financial instrument information in said second data file format to
14 the institution that is to receive the information upon one of demand from the
15 institution that is to receive the information, instructions by the originating institution
16 and within a prearranged time period.

1 62. The process of claim 61 wherein said data file further containing identifying
2 information with respect to both the originating institution and the institution that is to
3 receive the information.

1 63. The process of claim 61 wherein said data file further contains identifying
2 information with respect to an account at an institution of first deposit in which said financial
3 instrument is deposited.

1 64. The process of claim 61 further including the step of performing security procedures
2 for limiting only authorized originating and receiving institutions to effect one or more of
3 the reception, transmission, translation and storage of said financial instrument information.

1 65. The process of claim 61 including the step of transmitting information derived from
2 said financial instrument information to a settlement mechanism in a data file format
3 acceptable to said settlement mechanism.

1 66. The process of claim 61 wherein said data file received from said originating
2 institution includes co-mingled financial instrument information intended for multiple
3 receiving institutions.

1 67. The process of claim 66 further including the step of separating said co-mingled
2 financial instrument information intended for multiple receiving institutions.

1 68. The process of claim 67 further including the step of translating said separated
2 financial instrument information into one or more data file formats selected by each of the
3 multiple receiving institutions.

^{A12}
~~Sub A12~~

4 69. The process of claim 67 further including the step of translating said separated
5 financial instrument information into one or more data file formats corresponding to a data
6 file format acceptable to one or more of a plurality of settlement mechanisms.

1 70. The process of claim 63 wherein said institution of first deposit is said originating
2 institution.

1 71. The process of claim 63 wherein said originating institution is not the institution of
2 first deposit.

^{A13}
~~Sub A12~~

1 72. The process of claim 61 further including validating the identifying information of
2 the originating institution and the receiving institution; authenticating the financial
3 instrument information contained in said first data file format with respect to predetermined
4 data format parameters; and determining a preselected data file format acceptable to the
5 receiving institution.

1 73. The process of claim 61 further including the archival storage of said financial
2 instrument information.

1 74. The process of claim 61 further including enabling the receiving institution to retrieve
2 the financial instrument information in said second data file format upon one of demand from
3 the institution that is to receive the information, instructions by the originating institution and
4 within a prearranged time period.

1 75. The process of claim 61 wherein the financial instrument is a cash item.

1 76. The process of claim 61 wherein the financial instrument is one of an electronic funds
2 transfer and a paper instrument.

1 77. The process of claim 76 wherein the paper instrument is one of a money order, a
2 share order, and a draft.

1 78. The process of claim 61 wherein the financial instrument includes an MICR line from
2 which information relating to the instrument is derived.

1 79. The process of claim 78 in which the information from the MICR line includes at
2 least one of the routing transit number, customer account number and currency amount.

A14
Sub A13

1 80. A process for effecting one or more of the reception, transmission, translation and
2 storage of data files containing information relating to financial instruments among multiple
3 institutions, said financial instruments being exchanged between and among the institutions,
4 comprising:

5 receiving a data file from an originating institution, said data file being in a first file
6 format established by the originating institution and containing a designation that the
7 information in the data file is to be received by a predetermined institution and
8 identifying information with respect to the originating institution and the receiving
9 institution;

10 validating the identifying information of the originating institution and the receiving
11 institution;

12 authenticating the financial instrument information contained in said first data format
13 with respect to predetermined data format parameters;

14 determining a preselected data file format acceptable to the receiving institution;

15 performing security procedures for limiting only authorized originating and receiving
16 institutions to effect one or more of the reception, transmission, translation and
17 storage of said financial instrument information;

18 translating said data file in said first file format into a second file format selected by

19 ~~the receiving institution~~

20 storing said data file being in said second file format in a memory storage device
21 unique to the designated receiving institution;
22 transmitting said data file being in said second file format stored in the memory
23 storage device to the receiving institution and to a settlement mechanism; and
24 storing said data file in said second data format for archival purposes.

1 81. The process of claim 80 further including enabling the receiving institution to retrieve
2 the financial instrument information in said second data file format upon one of demand from
3 the institution that is to receive the information, instructions by the originating institution and
4 within a prearranged time period.

1 82. The process of claim 80 wherein the financial instrument is a cash item.

1 83. The process of claim 80 wherein the financial instrument is one of an electronic funds
2 transfer and a paper instrument.

1 84. The process of claim 83 wherein the paper instrument is one of a money order, a
2 ~~share order, and a draft,~~

1 85. The process of claim 80 wherein the financial instrument includes an MICR line from
2 which information relating to the instrument is derived.

1 86. The process of claim 85 in which the information from the MICR line includes at
2 least one of the routing transit number, customer account number and currency amount.

1 87. The process of claim 80 further including enabling the receiving institution to retrieve
2 the financial instrument information in said second data file format upon one of demand from
3 the receiving institution, based on instructions by the originating institution, and within a
4 prearranged time period.

1 88. The process of claim 80 wherein said data file received from said originating
2 institution includes co-mingled financial instrument information intended for multiple
3 receiving institutions.

1 89. The process of claim 88 further including the step of separating said co-mingled
2 financial instrument information intended for the multiple receiving institutions.

1 90. The process of claim 89 further including the step of translating said separated
2 financial instrument information into one or more data file formats selected by each of the
3 multiple receiving institutions.

Sub A15
A14
1 91. The process of claim 89 further including the step of translating said separated
2 financial instrument information into one or more data file formats corresponding to a data
3 file format acceptable to differing settlement mechanisms.

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